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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/758,275

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Akihiro Ozeki

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PILLSBURY WINTHROP SHAW PITTMAN, LLP
Eric S. Cherry - Docketing Supervisor
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

FANTU, YALKEW

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/758,275

Applicant(s)

OZEKI, AKIHIRO

Examiner

Yalkew Fantu

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Marvine et al (US 6,761,987).

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

With respect to claim 1, Marvin et al discloses an electronic apparatus (Fig. 1 element 10) a fuel cell unit (Fig. 1 element 12) capable of generating power by chemical reaction (Fig. 1 elements 14 and 42), an auxiliary mechanism (such a fuel pump; fig. 1, 14) for the fuel cell, and a chargeable / dischargeable secondary battery (Fig. 1 element 22), comprising: a processor configured to execute power-off processing when an instruction to turn off a supply of power to the electronic apparatus (the controller 40 has the capability to activates for charging, and turn off when charge is completed: col. 4, 41-46); the power-off processing including determining whether a capacity of the

secondary battery is smaller than the first one (fig. 1, 40; par. 4, lines 41-46) to instruct the fuel cell unit to charge the secondary battery (fig. 1, 22) using power supplied from the fuel cell (fig. 1, 12) and stop charging operation of the fuel cell unit after charging has been completed (par. 4, lines 41-46);(par. 3, line 54-57; col. 4, lines 5-8). Marvin does not expressly disclose executing power-off processing when an instruction turn off a supply of power determining capacity of the secondary battery is smaller than a first value. It would have been obvious to one ordinary skill in the art for a fuel-battery combined processing unit, such as this, to charge to rechargeable battery using the fuel cell, and stop charging when it reaches the predetermined value. The reason is to protect overcharging the battery and prevent from short service life.

With respect to claim 2, Marvin et al teaches the electronics apparatus according to claim 1, wherein the power-off processing includes instructing the fuel cell unit to stop charging the secondary battery when a specific instruction is issued while the secondary stop (fig. 1, 40; PROG 13; has the capability to issue the instruction) charging the secondary battery (Fig. 1 element 22) when specific instruction issued while the secondary battery is being charged (fig. 2, 40:13).

With respect to claim 3, Marvin also discloses wherein the power-off processing includes instructing the fuel cell unit to stop charging (fig. 1, 40; PROG 13) the secondary battery (Fig. 1 element 22) and turns on the power supply of the electronics apparatus (Fig. 1 20) if a specific instruction is issued (Fig. 1 element 13; Col. 3 40-46).

With respect to claim 4, the electronics apparatus according to claim 1 (Fig. 1 10), wherein the power-off processing includes instructing the fuel cell unit to stop (fig.

1, 40; PROG 13) the secondary battery (Fig. 1 element 22) when a predetermined period of time elapses after the battery starts to be charged (Fig. 2 and 3; Col 4 lines 5-20).

With respect to claims 5, 6 and 7 Marvin discloses a wherein the power-off processing includes instructing the fuel cell unit to stop (fig. 1, 40; PROG 13) charging the secondary battery (Fig. 1 element 22) when the capacity exceeds a second value after the battery starts (Col. 4 lines 40-45). An operational control method using (fig. 1, 40: 11 and 13) an electronic apparatus (Fig.1 element 20) to which a fuel cell unit is attachable, the fuel cell unit including a fuel cell (Fig. 1 element 12), and capable of generating power by chemical reaction (Fig. 1 elements 14, 42 and 44), an auxiliary mechanism for the fuel cell (fig. 1, 14), and a chargeable/dischargeable secondary battery, the electronic apparatus being capable of receiving power (fig. 1, 20) supplied from the fuel cell or the secondary battery (Fig. 1 22).

With respect to claims 8, 9 and 10, Marvin discloses wherein the power-off processing includes instructing, by the electronic apparatus, the fuel cell unit to stop (fig. 1, 40; 11 and PROG 13) charging the secondary battery when a predetermined period of time elapses and turning on power if a specific instruction is issued (Col. 4 1-20; Fig. 2 and 3).

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marvin in view of Pratt et al. (US 2003/0194589).

With respect to claims 15-17, Marvin discloses an electronic apparatus (fig. 1, 20) to which a fuel cell unit is attachable (fig. 1, 12), the fuel cell unit including a fuel cell

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capable of generating power by chemical reaction (fig. 1, 14 and 42), an auxiliary mechanism (fig. 1, 14) for the fuel cell, and a chargeable/dischargeable secondary battery (fig. 1, 22), the electronic apparatus being capable of receiving power supplied from the fuel cell (fig. 1, 12) or the secondary battery 22, the electronic apparatus comprising: a processor configured to execute power-off processing when an instruction to turn off a supply of power to the electronic apparatus (the controller 40 has the capability to activates for charging, and turn off when charge is completed: col. 4, 41-46)); the power-off processing including displaying information of a capacity (fig. 1, 40: 11 LUT display list of info) of the secondary battery 22 is smaller than a preset value (col. 4, 40-47); displaying (fig. 1, 40:13) to display information on a second screen in which at least one of a capacity of the secondary battery to be achieved (col. 3, lines 54-57) and a time period to be charged is settable (fig. 2); instructing (fig. 1, 40:13 the program) the fuel cell unit 12 to charge the secondary battery 22 in accordance with a content set on the second screen when the at least one of the capacity of the secondary battery to be achieved (col. 3, 54-57) and the time period to be charged is set on the second screen, and turn off a power supply of the electronic apparatus after the charging is completed (the controller 40 has the capability to activates for charging, and turn off when charge is completed: col. 4, 41-46), further comprising a fourth control section to instruct the fuel cell unit to start up when the power supply of the electronic apparatus is turned on (the controller 40 with LUT 11 and PROG 13 program keeps instructing the fuel cell unit to start power supply as mentioned above, but does not

expressly teaches a display means. Pratt et al, however, discloses a display means (page7, lines 46-48).

Marvine et al and Pratt et al. are analogous arts because they are from the same field of endeavor namely Fuel cell power source.

At the time of the invention it would have been obvious to a person having ordinary skill in the art to provide a display means as taught by Pratt et al to the fuel cell system of Marvine et al. to ensure the remaining capacity of the secondary battery. The reason for doing would have been that the use of display means in order to display a residual capacity of the battery to charge before it completely depleted and damaged at the result of over discharge.

Response to Arguments

Applicant's arguments filed on 07/12/2007 have been considered but are ineffective to overcome the Marvine and Pratt references. (See the rejection above).

Applicant argues that Marvine does not determine "... processor configured to execute power-off processing when an instruction to turn off a supply power... capacity of the second battery is smaller... instructing the fuel cell unit to charge the secondary battery... stop when completed..." Marvine, however, discloses a controlling processor a first control section (fig. 1, 40; par. 4, lines 41-46) to instruct the fuel cell unit to charge the secondary battery (fig. 1, 22) using power supplied from the fuel cell (fig. 1, 12) in a case where a capacity of the secondary battery is smaller than a first value when a power supply of the electronic apparatus is turned off (par. 4, lines 41-46). It is implicit for the processor, controlling unit (or a microprocessor) of the fuel cell power to control

the ON and OFF state in order to start and stop the charging process as the combined references of Marvine and Pratt disclose above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yalkew Fantu whose telephone number is 571-272-8928. The examiner can normally be reached on M - F: 7- 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KARL EASTHOM
SUPERVISORY PATENT EXAMINER